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ABSTRACT

The educational administrator must often straddle the gap between empirically sound and politically expedient decisions, employing policy assessment as a hedge against adopting ill-conceived policies. The resource allocation model (RAM) attempts to remedy this dilemma by tying program evaluation and policy analysis into a single conceptual yet practical framework for incorporating evaluation data in the assessment of policy issues. The identification and weighing of system demands is the focus of the first component of the allocation model. For this, administrators use the needs assessment survey sheets, code sheets, and score sheets provided. The second level of the model requires use of the program implementation inventory sheet to examine current system programs and plans. The third level of resource management involves assessing program effectiveness using the program outcome inventory sheet provided. The fourth and final phase of the model allows the policy-maker to synthesize information concerning the effects of previous policy decisions on the system's internal and external environmental components. For this phase a program decision worksheet is provided. (Author/JM)

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EVALUATION AND RESOURCE MANAGEMENT: A POLICY-MAKER'S GUIDE TO USING PROGRAM DATA IN POLICY FORMATION

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Educational policy-makers often must straddle the gap between empirically sound and politically expedient decisions, employing policy analysis as a hedge against ill-conceived policy adoption. The failure of existing evaluation models to deal adequately with political issues surrounding policy questions contributes to the restrictive nature of current evaluation theory.

The proposed conceptual model attempts to remedy the aforementioned dilemma by sensitizing policy-makers to the benefits of utilizing program evaluation data when considering policy questions. The Resource Allocation Model provides a blueprint which allows policy-makers to manage system resources through the use of evaluation data.

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EVALUATION AND RESOURCE MANAGEMENT: A POLICY-MAKER'S GUIDE TO USING PROGRAM DATA IN POLICY FORMATION

INTRODUCTION

The restructuring of public confidence and support figures to be the most critical challenge facing our nation's schools during the last quarter of the 20th century. The accountability movement has soared to national prominence during the past decade, responding to charges of inequality, inefficiency, and ineffectiveness. Thus forcing school districts to scrutinize even more closely the use of shrinking education dollars. More recently, congressional changes in the Elementary and Secondary Education Act of 1965 have raised the evaluation of federally sponsored educational programs to new heights. Responding to these public pressures and legislative demands, two significant factors have been observed with respect to the field of education. First, school divisions throughout the country have attempted to establish or expand evaluation capabilities. Second, a proliferation of evaluation models has been triggered (Anderson, 1973).

Yet questions arise as to whether the rush for "program" evaluation strategies has overlooked the concerns of the policy-maker who is faced with the management of increasingly limited district resources. In an attempt to address this issue, a resource allocation model (RAM) has been suggested to assist the policy-maker when considering policy decisions.

The RAM model provides the policy-maker (building principal, school superintendent, or board member) with the tools for making effective policy decisions. Through the use of this model planning for the allocation of system resources can be made more simple and more efficient.

NEED FOR A RESOURCE ALLOCATION MODEL

Infusing program evaluation data into the policy-making process constitutes one of the major problems confronting school districts which are trying to sharpen their planning procedures. The current lack of a practical model from which to proceed compounds the problem.

Evaluation, we are told, by nature involves the formation of judgments concerning the worth of educational programs and practices. Therefore, the evaluator's principal function is that of valuing (Popham 1975). While few would dispute the fact that evaluation necessitates the weighing of merit, it may prove presumptuous to assume that such responsibility rests solely with the evaluator. The evaluator in a local educational agency (LEA) often finds that such decisions are reserved for the administrative hierarchy. At this level, substantive evaluation (i.e., empirical evidence) constitutes only one criterion upon which judgments of worth are made. As House (1973) has suggested, factors such as timeliness, pervasiveness, political pressure, and public opinion influence the decision process.

The educational administrator must often straddle the gap between empirically sound and politically expedient decisions, employing policy assessment as a hedge against adopting ill-conceived policies. The RAM model attempts to remedy the aforementioned dilemma by tying program evaluation and policy analysis into a single conceptual scheme.

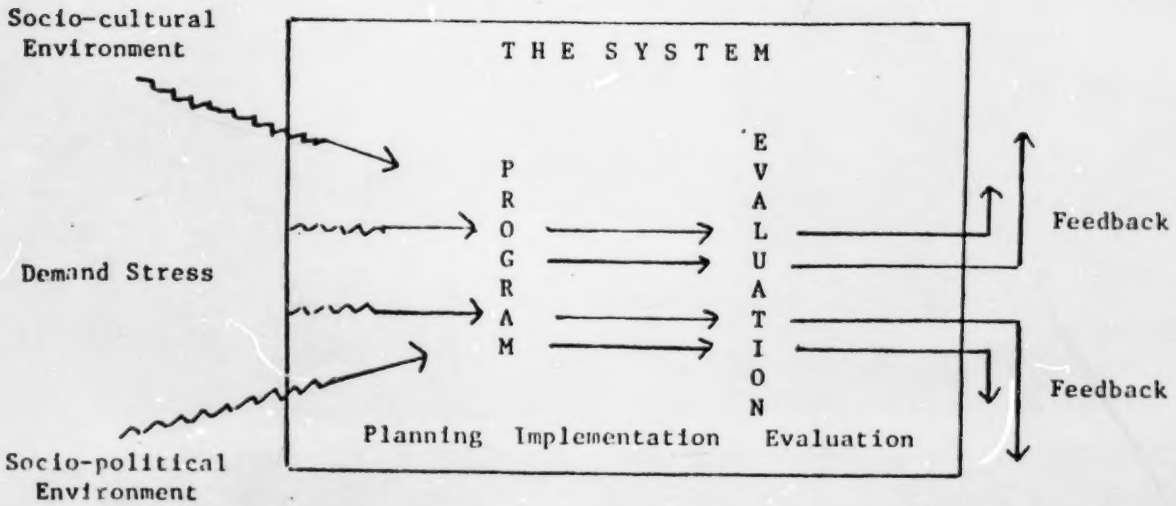
Effective administration depends on the ability of the policy-maker to assess system needs and resources and to interpret both in the light of information concerning the worth of system programs. The information requirements for the administrator parallel those of program staff, that is: What are the needs? How are programs being implemented? and How effective are the programs? (Lucco & Breen 1979). These questions form the basis for the policy-making process defined by the RAM model.

DEFINING THE RESOURCE ALLOCATION MODEL

The resource allocation model has been developed in order to provide a more comprehensive conceptual and yet practical framework for incorporating evaluation data in the assessment of policy issues. It provides a plan which allows the LEA or individual school to more effectively manage scarce system resources.

Systems, as Easton (1965) has suggested, continually experiences "demand stress" which may arise from internal or external sources. Once these demands gain recognition, programs are usually designed to address specific needs. These programs characteristically progress through three phases: planning, implementation, and evaluation. Associated with each of these three programmatic phases are certain evaluative functions. Evaluation data from each program phase must be included in the establishment of criteria against which policy decisions are later judged. In other words, any attempt to assess the relative impact of a program upon the system, i.e., the extent to which a program diminishes demand stress, must incorporate program evaluation data.

FIGURE I
The Life Cycle of an Educational Program



LEVEL I - MANAGING SYSTEM STRESS

THE FIRST LEVEL OF RESOURCE MANAGEMENT: IDENTIFYING EDUCATIONAL PRIORITIES

DISCUSSION

The first and perhaps the most important task in the resource allocation process involves an assessment of the demands upon the system. Demands here refer to the interests and values of the educational system and of the larger socio-political environment. These demands compete for recognition and system resources.

Demands are generally articulated by parents, teachers, students, politicians, and other groups within the community and may be expressed as educational goals or needs which should be addressed by the local education agency. Once these demands are acknowledged they usually give rise to new educational programs and practices (see Figure I).

The importance of this stage of our model is underscored by two primary factors. First, managing system stress is the policy-makers' "raison d'être", i.e., their job is to ease value conflict through policy decisions. Second, the form and delivery of system programs and activities are determined, to a great extent, by the management of competing demands. Information gathered through context and input evaluations can provide a basis for assessing system stress (Stufflebeam, 1971).

Thus, the identification and weighing of system demands becomes the focus of the first component of the resource allocation model.

APPLICATION

There are three principal operations which must be carried out at this level of decision-making. First, the policy-maker must identify the key educational concerns as perceived by the educational and lay communities. Second, these concerns must be summarized, organized, and coded for further processing. And third, these concerns must be weighed, scored, and ranked. Instruments and forms are provided (See figures II, III, & IV) for completing these tasks.

Before using the Needs Assessment Survey sheet, however, key interest groups within the educational and lay communities must be identified. Once this has been accomplished, each group's most pressing concerns regarding public education at the school or district level must be solicited using the survey sheet provided or a like instrument.

Following the collection of this information, the Needs Assessment Code Sheet may be used to summarize and organize the data. First, list each group or individual surveyed under the column marked Group. Second, assign a numerical code to each group, and an item code to each concern. One of the five item codes suggested in the key or one developed locally can be used for this purpose. Third, state each concern briefly in the column labeled Concern. And finally, enter the rating of each concern in the space provided to the right.

Now refer to the Needs Assessment Score Sheet. Begin filling out the score sheet by briefly stating each concern in the appropriate column. Next, enter the item code which corresponds to each concern in the designated column. In the column labeled GROUP identify each of the groups listing this particular concern on their survey by entering the group code.

Compute the average rating for each concern (i.e., the sum of each group's rating divided by the number in the group) using the code sheet, and then enter this number in the column marked MEAN RATING.

In the column labeled WEIGHT place the numerical weight (e.g., 1-5) which you feel represents the relative importance of each concern or group. That is, given the list of concerns or demands which confront the system, which concerns or groups, in your administrative judgment, warrant greater weight. The policy-maker here has an opportunity to build into the resource allocation process his political awareness.

The mean rating plus the weight gives each concern a score, which is entered into the appropriate column. Once all the concerns have scores they are ranked using the column on the far right. The first level in our resource allocation model has now been completed.

In some cases it is entirely possible that priority concerns have already been articulated. If the school or district has recently conducted a needs assessment, a prioritized list of educational needs or goals may have been developed.

In this case you would disregard the Needs Assessment Survey Sheet and the Needs Assessment Code Sheet (see figures II & III) unless you plan to expand that needs assessment effort to include more groups within the community. You may, however, simply turn to the Needs Assessment Score Sheet and fill in all the appropriate information except for the columns headed MEAN RATING, WEIGHT, AND SCORE.

In other cases a list of school or district goals may exist, but there may be little information about who supports them. Under these circumstances it may prove beneficial to identify the groups who support each goal. List these groups or individuals in the Group column of the Needs Assessment Code Sheet. Then, assign a numerical code to each group or individual and an item code to each goal, using one of the five codes suggested in the Item Code Key or one developed locally. Finally, briefly state the goal in the column labeled Concern.

If these goals are already ranked do not use the rating grid provided. However, if they are not ranked, then you may wish to affix a rating to each goal based upon your impression of the perceived value the group would have assigned.

Turning next to the Needs Assessment Score Sheet, list each goal by first placing the group code(s) and the item code under the appropriate columns. Second briefly state each goal in the space provided. And finally, list the rating (where appropriate) for each goal under the column labeled MEAN RATING.

In the column labeled WEIGHT place a numerical weight (e.g., 1-5) which best reflects your perception of the relative importance of each goal or group sponsor. The mean rating plus the weight gives each goal a score which is entered into the column marked SCORE. Finally, each goal is ranked by its score. This rank is entered in the column marked RANK.

Where goals are already ranked the policy-maker has a couple of options for filling out the Needs Assessment Score Sheet. First, he/she could use the ranks which exist. In this case only the columns labeled GROUP, CONCERN, and RANK would be filled out on the Needs Assessment Score Sheet.

Second, the existing ranks could be entered in the MEAN RATING column. Then using the column labeled WEIGHT, the goals could be remarked from an administrative perspective. Next, the column headed SCORE could be used to enter a discrepancy score (i.e., group rank minus your rank). And finally, based upon the information provided in the score column, a final ranking could be developed which is entered under the column labeled RANK.

The development of list of ranked concerns or goals completes Level I of the Resource Allocation Model.

FIGURE II

NEEDS ASSESSMENT SURVEY SHEET

Please list your most pressing concerns relating to public education in your school district. These concerns may relate to instructional programs, instructional staff, instructional materials, school administration, school facilities and equipment, or any other aspect of the public school program.

Briefly state each of your concerns and then rate its relative importance by checking a number from 1 Low Importance to 5 High Importance.

CONCERN	IMPORTANCE					
	1	2	3	4	5	

FIGURE III

NEEDS ASSESSMENT CODE SHEET

Key To Item Code: Instructional Programs - IP, Instructional Materials - IM, Instructional Staff - IS, Administration - A, Facilitites and Equipment - FE

Key To Group Code: 001, 002, 003, etc.

INTEREST GROUP		PRIMARY CONCERNS						
Group	Group Code	Item Code	Concern	Rating Low				High
				1	2	3	4	5
(example) PTA	001	IP	Teach Developmental Reading Grades 7-12				X	

FIGURE IV

NEEDS ASSESSMENT SCORE SHEET

GROUP		CONCERN	MEAN RATING	+	WEIGHT =	SCORE	RANK
Group(s) Code(s)	Item Code						

LEVEL II - MONITORING PROGRAM PROGRESS

THE SECOND LEVEL OF RESOURCE MANAGEMENT: REVIEWING CURRENT PROGRAMS

DISCUSSION

The second level of the model requires the examination of system programs and plans. The policy-maker at this juncture must identify current programs or plans for action which correspond to the demands expressed at Level I. Once these programs and plans have been identified, information concerning the current level of operation must be reviewed.

The collection and review of data relating to program implementation serves two purposes. First, it allows for the efficient management of current program expenditures, and second, it contributes to the planning process for future use of system resources. This information is directly related to the following questions, which are very important to the policy-making process.

1. What factors are contributing to lags in program implementation?
2. Are system resources currently distributed in a way that ensures program success?
3. Given the current outlay of resources and level of implementation, what are the implications for other competing demands?

Thus the second component of the resource allocation model necessitates pairing demands with existing or proposed programs, and reviewing current program status.

APPLICATION

The Program Implementation Inventory (see figure V) can be used to summarize information at this Level. This form requires that you list in order of importance the concerns identified in the first phase of the model. Parallel to each concern, in the column labeled INSTRUCTIONAL PROGRAM or PLAN OF ACTION, list the program(s) or proposed program(s) which address each specific concern.

Following the identification of programs or plans, data relating to the current level of program operation must be gathered. In most cases, program managers or supervisors will have available information concerning program implementation, either through informal observation or through formal evaluation. This information should be requested from program managers or staff for review at the policy-making level.

Program implementation data can be used to make adjustments in current programs as suggested above. For example, changes in program substance and/or budget could be made in order to increase the likelihood of success.

However, for our purposes, considering future resource allocation, it is important to note the nature and number of problems being experienced at current funding levels. The grid provided on the right-hand side of the Program Implementation Inventory identifies seven potential problem areas which could decrease program effectiveness and, therefore, affect future levels of support. Indicate the areas of deficiency for each program by placing a check in the appropriate columns provided. Once you have done this, count the number of checks for each program and write it in the column labeled Total Checklist Score. This procedure completes Level II of the resource allocation model.

FIGURE V

PROGRAM IMPLEMENTATION INVENTORY

Following a review of process evaluation data, place a check in each box where a program deficit is indicated.

EDUCATIONAL CONCERN (In Rank Order)	EDUCATIONAL PROGRAM or PLAN OF ACTION	PROGRAM IMPLEMENTATION CHECKLIST									Total Checklist Score
		Materials and Supplies	Program Staff	Program Administration	Support Services	Program Facilities	Changes in Program Emphasis	Changes in Program Activities			

LEVEL III - MEASURING PROGRAM PRODUCTS

THE THIRD LEVEL OF RESOURCE MANAGEMENT: REVIEWING PROGRAM OUTCOMES

DISCUSSION

The third phase of the model involves the examination of quantitative data regarding program effectiveness. This dimension of the policy-making process is essential for determinating program worth. At this point the policy-maker must consider the relative strength of each program in light of the following questions:

1. Has the program contributed substantially to system goals (significantly reduced demand stress)?
2. Can the cost incurred, in terms of resources allocated, be justified when all the needs of the system are considered (demands yet to be addressed)?

Program product data must be examined on a collective basis, that is, the relative worth of a program should be computed from its effectiveness and the importance of the need it addresses in relation to the importance of other competing demands and programs. In other words, the merit of each program has to be judged in relation to the total array of system demands and programs, and not based solely on the level of effectiveness reported by each program manager. This analysis actually carries over to Level IV of the model. However, before formulating new policy information regarding program effectiveness must be collected and summarized.

APPLICATION

The Program Outcome Inventory (see figure VI) was developed in order to summarize data relating to program effectiveness. In most cases program managers should have information concerning program outcomes on file. However, in any event, reports describing the amount of success or degree of implementation should be solicited from each program, be it a mathematics program or a school construction program.

Once this information is obtained, proceed to fill out the outcome inventory. First, briefly state each concern in the appropriate column. Next, list the program or programs which correspond to the concern on the left. Then, using the product evaluation data provided by program managers, fill out the columns marked PROGRAM OUTCOME SCORE by placing a check in the box of the number which best describes the reported effectiveness of each program.

Finally, in the columns labeled EVALUATION COST and PROGRAM COST respectively, enter the dollar amount which gives the best estimate of each cost. These figures can be used to determine if sufficient funds were available to adequately evaluate programs. In addition, program cost can be compared with the degree of success obtained.

The examination of program effectiveness completes Level III in the resource allocation model, and sets the stage to begin the budgetary process in earnest.

FIGURE VI

PROGRAM OUTCOME INVENTORY

Following a review of product evaluation data, which has been provided for each of the programs listed below, check the number which best describes the program's outcomes.

Check zero (0) if a program has not reached completion or has not provided product evaluation data.

In all <u>other</u> cases choose one of the following numbers.

(1) -the program may or may not claim success, however, no evidence of effectiveness is offered.

(2) -the program claims success, and some evidence is offered. However, the data provided does not include hard data,i.e., gleaned from specific program measures such as test scores or recorded observations.

(3) -the program claims success, and strong evidence of effectiveness is offered. Data presented includes specific measures of success along with other sources of information.

CONCERN (In Rank Order)	PROGRAM	PROGRAM OUTCOME SCORE				EVALUATION COST $	PROGRAM COST $
		0	1	2	3		

LEVEL IV - MEDIATING POLICY DECISIONS

THE FOURTH LEVEL OF RESOURCE MANAGEMENT: DETERMINING PROGRAM WORTH

DISCUSSION

The fourth and final phase of the model allows the policy-maker to synthesize information concerning the effects of previous policy decisions on the system's environmental components both internal and external. In other words, this level of the resource allocation model is d signed to provide for the mediation of value conflict, i.e., competing system demands.

The system's potential for exerting control over its environment depends, to a great extent, upon the amount of information available to it concerning the consequences of previous policy decisions which come to fruition in the form of programs. Thus the importance of a sound program evaluation strategy is underscored.

The analysis of program feedback during this phase of the model may indicate, for example, that current policy decisions are proving ineffectual for mediating competing value interests, in other words, that current programs are unacceptable to the system's clientele.

Therefore, the principal questions addressed by Level IV of the RAM model or by any other good policy assessment model are:

1. Have past policy decisions concerning system programs been successful in alleviating system stress?
2. What are the plans for future use of system resources?

The Program Decision Worksheet should assist the policy-maker in answering these questions.

APPLICATION

The decision-making process is initiated by completing the six columns on the Program Decision Worksheet (see figure VII). This information provides, the basis upon which future program decisions are made.

First, enter each concern once again in the column headed CONCERN. Second, enter the item code associated with each concern under the column marked ITEM CODE. The item code is provided so that the policy-maker can tell at a glance which areas are in greater demand (e.g., IP-instructional programs; FE-facilities and equipment; etc.). Third, enter the program or programs which correspond to each concern in the column labeled PROGRAM. Fourth, enter scores from the Program Implementation Inventory (PII) and the Program Outcome Inventory (POI) for each program. And finally, enter the program cost (dollar amount) in the appropriate column. Once this section of the form has been completed turn your attention to the section entitled PROGRAM DECISIONS.

Using the columns provided in the PROGRAM DECISIONS section, the policy-maker must now decide whether to maintain the current level of expenditures, decrease expenditures, increase expenditures, eliminate the program, or add a new program. These decisions will vary from system to system depending upon unique circumstances and administrative judgment. For example, in one situation a current program which addresses a high priority may be eliminated in favor of adding a new program, due to the fact that it is experiencing several problems in implementation (PII Score) and show little evidence of success (POI Score). However, in another situation, under the same set of circumstances, the administrator may feel it is less costly and more desirable to increase expenditures for a faulty program in hopes of getting it on track rather than taking on a new program.

In another situation, a high priority concern may be indicated; but no program exists to address that concern. One administrator may opt to add a new program, while another administrator may feel that an existing program can be expanded to embrace this concern if program funds are increased.

Thus the policy-making process has come full circle. It is hoped that this model will prove beneficial for considering alternatives in the resource allocation process. However, it is important to remember that the utility of the RAM model depends upon one's ability to generate information concerning district needs, as well as current program operations.

FIGURE VII

PROGRAM DECISION WORKSHEET

CONCERN	ITEM CODE	PROGRAM	PII SCORE	POI SCORE	PROGRAM COST	PROGRAM DECISIONS				
						MAINTAIN CURRENT EXPENDITURES	DECREASE EXPENDITURES	INCREASE EXPENDITURES	ELIMINATE PROGRAM	ADD NEW PROGRAM
					$	$	$	$	$	$

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